

Title (en)

Stamped bipolar plate for PEM fuel cell stack

Title (de)

Gestanzte bipolare Platte für PEM-Brennstoffzellenstapel

Title (fr)

Plaque bipolaire estampée pour empilement de piles à combustible de type PEM

Publication

EP 1235289 A3 20090513 (EN)

Application

EP 02001274 A 20020117

Priority

US 79152801 A 20010223

Abstract (en)

[origin: EP1235289A2] A bipolar plate assembly for a PEM fuel cell having a serpentine flow field formed on one side and interdigitated flow field formed on the opposite side such that a single plate member are usable for as an anode current collector and a cathode current collector of adjacent fuel cells. The bipolar plate assembly further includes a staggered seal arrangement to direct gaseous reactant flow through the fuel cell such that the seal thickness maximized while the repeat distance between adjacent fuel cells is minimized.

IPC 8 full level

H01M 8/02 (2006.01); **H01M 8/10** (2006.01); **H01M 8/24** (2006.01)

CPC (source: EP US)

H01M 8/0228 (2013.01 - EP US); **H01M 8/0247** (2013.01 - EP US); **H01M 8/0263** (2013.01 - EP US); **H01M 8/0267** (2013.01 - EP US); **H01M 8/0271** (2013.01 - EP US); **H01M 8/241** (2013.01 - EP); **H01M 8/2483** (2016.02 - US); **H01M 8/2483** (2016.02 - EP); **H01M 2300/0082** (2013.01 - EP US); **Y02E 60/50** (2013.01 - EP)

Citation (search report)

- [A] WO 0113449 A2 20010222 - ALLIED SIGNAL INC [US]
- [A] WO 0017952 A1 20000330 - ENERGY PARTNERS L C [US]
- [A] EP 0851518 A1 19980701 - GEN MOTORS CORP [US]
- [A] JP 2000311696 A 20001107 - HONDA MOTOR CO LTD

Cited by

CN111554950A; FR2846798A1; EP1501143A1; FR2858116A1; GB2419734A; GB2419734B; EP4261326A1; US7572538B2; WO2005078837A1; WO2018200911A1; WO2006036606A3; US7686937B2; US8715470B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

Designated extension state (EPC)

AL LT LV MK RO SI

DOCDB simple family (publication)

EP 1235289 A2 20020828; **EP 1235289 A3 20090513**; CN 1493092 A 20040428; EP 1380062 A1 20040114; JP 2002260690 A 20020913; JP 2004522262 A 20040722; JP 3754673 B2 20060315; JP 3911172 B2 20070509; US 2002119358 A1 20020829; US 2003124405 A1 20030703; US 6503653 B2 20030107; US 6893770 B2 20050517; WO 02069425 A1 20020906

DOCDB simple family (application)

EP 02001274 A 20020117; CN 02805427 A 20020222; EP 02724986 A 20020222; JP 2002041288 A 20020219; JP 2002568444 A 20020222; US 0205326 W 20020222; US 32209202 A 20021217; US 79152801 A 20010223